

***C. DIFFICILE* REPORTING**

July 24, 2008

Public reporting of *C. difficile* associated disease (CDAD) in Ontario hospitals will begin on Sept. 30, 2008. The reporting process has two streams. One stream is routine Patient Safety Indicator Reporting of monthly CDAD rates. Hospitals will post their rates of CDAD acquired in their facility on their website each month, and will also report their data to the Ministry of Health and Long-Term Care through an online template captured by a central database. The other stream is Outbreak Management Reporting. On Sept. 1, 2008, outbreaks of CDAD in Ontario hospitals will become a reportable disease. Hospitals will be required to report cases of CDAD to their local public health unit when the definition of an outbreak is met in their facility.

What is *C. difficile*?

C. difficile is one of the many types of bacteria that can be found in feces (bowel movement). *C. difficile* associated disease (CDAD) may occur when antibiotics kill your good bowel bacteria and allow the *C. difficile* to grow. When *C. difficile* grows, it may produce toxins. These toxins can damage the bowel and may cause diarrhea. *C. difficile* associated disease is usually mild but sometimes can be more severe. In severe cases, surgery may be needed, and in extreme cases *C. difficile* may cause death. *C. difficile* is the most common cause of infectious diarrhea in healthcare facilities. CDAD cases that occur more than 72 hours after admission into hospital are considered hospital-acquired, or nosocomial.

What information is going to be collected?

Routine surveillance information gathered by hospitals on CDAD may include date of admission of new cases and any other recent hospital admissions for that patient over the past month. The record will also capture details of symptoms and when they began as well as lab results any treatment given and the date the symptoms resolved. When an outbreak is declared additional details will be collected to manage the outbreak.

What will be publicly reported?

Each hospital will post their monthly rate of CDAD acquired in their facility on their website. The Ministry's website will also have the data available for each hospital. The data will be provided to public health units, Regional Infection Control Networks and Local Health Integration Networks.

Hospitals with CDAD outbreaks will also be required to report immediately to their local public health unit.

What determines the rates?

The number of new cases of CDAD acquired in the hospital within a month is divided by the number of patient days for that month. The results are multiplied by 1000. This represents the incidence rate of nosocomial CDAD associated with the reporting facility per 1000 patient days. (e.g. 5 cases÷10,000 pt.days = 0.0005 x 1000 = 0.5 per 1000 patient days). The rates of infection will be calculated by the month.

What is the healthcare system doing with the rate information?

The rate of nosocomial CDAD will be used to analyze any trends of infection, sources of infection and general surveillance of CDAD cases in the healthcare system. The data will assist hospitals to evaluate the effectiveness of infection prevention and control interventions and make further improvements based on this information. It will also assist hospitals in determining the baseline rate of nosocomial CDAD for their facility and to detect outbreaks.

What defines a CDAD outbreak?

CDAD outbreaks are classified by the size of the outbreak and how much of the hospital is affected. A facility-level (or hospital-wide) outbreak is a larger scale than a ward or unit-level outbreak. Hospital staff in consultation with Public Health will declare a facility-level outbreak when their baseline rate for number of nosocomial cases is 80% or more than the average rate for similar hospitals. A return to the average baseline rate of infection signals the end of an outbreak.

Another criterion may also result in officials declaring an outbreak. Should the number of hospital-acquired cases of CDAD double over two consecutive months in a hospital, an investigation is triggered and public health is notified.

A smaller scale hospital ward or unit-level outbreak may result when three or more new nosocomial cases of CDAD are diagnosed within a seven-day period on a single ward or unit. The hospital's Infection Prevention and Control team must notify the local Public Health Unit. This does not automatically constitute a formal outbreak but should trigger notification and liaison. An investigation and review would be actively undertaken as well.

Six or more new nosocomial cases of CDAD within a 30-day period on a single ward or unit constitutes an outbreak. A formal outbreak would be declared by the local Public Health Unit. Outbreak reporting is mandatory immediately in this situation.

What happens when an outbreak is declared?

Hospitals and public health units have plans in place to manage outbreaks. Larger and smaller scale CDAD outbreaks are handled through a similar process of practices, reporting and consultations. In most situations a hospital is already reacting to an outbreak before an outbreak is officially declared. Usually when cases escalate the hospital has already elevated their infection control practices to prevent the spread of infection.

This may involve a number of procedures such as, as communicating to staff, patients and visitors about the outbreak and the measures being used to control it. Additional measures may include increased environmental cleaning, reinforcement of hand hygiene and strict adherence to infection control procedures for all CDAD patients.

Once Public Health has officially declared an outbreak, the hospital's outbreak management team moves into action. This team oversees the various measures that are put in place during an outbreak from environmental cleaning, patient transfers, reporting of cases and liaising with ministry Public Health officials. During an outbreak, the outbreak management team reviews the ongoing measures in place to see if they are still effective, need adjusting, should be dropped or if new measures should be taken. Once the rate returns to the average baseline, the outbreak is usually declared over. At that time the hospital and Public health meet to review the management of the outbreak and identify and lessons learned in containing a CDAD outbreak.